



AMA Chapter #3798

Chino Valley Model Aviators

Official News



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www.chinovalleymodelaviators.org

"To create an interest in, further the image of, and promote the hobby/sport of radio controlled aircraft"

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Aviation Fact:

Happy 100th Birthday to the Royal Air Force of Great Britain.



Shel Liebach's EDF A-10



Dennis O'Connor's WWII Navy F8F Bearcat



Support Our Local Hobby Shop



6594 E. Second Street
Suite C,
Prescott Valley, AZ
775-4971

The Grumman F8F Bearcat was one of the fastest piston-engine aircraft of its time, its performance was estimated to be on par with early jet-powered fighters. Dennis' Bearcat has a 48" wing span, \$200 ARF from Motion RC. It comes RTF with retracts, just add Receiver and a four cell 2500Ma battery, bind it to your radio and go fly.



It's been an eventful couple of months for our club get together. First, we had to cancel our June meeting, and then things went awry at our July meeting. Like good soldiers, we adapted and overcame the challenge and ended up having an abbreviated and fun meeting out in the parking lot.

From the information I've received from airport staff, the room may not be available in August either. I'll work on that and get back to everyone with a confirmed location prior to our next meeting.

We recently had a crash at the field that sparked a LiPo battery fire. The battery quickly burned itself out and the rest was sub-

dued by a quick acting member deploying a fire extinguisher. Reminder to all members, we have 3 fire extinguishers out at the field. DO NOT hesitate to use them if the situation arises. If any extinguisher is used, please report it immediately to *Jerry English* our Safety Officer. He will take action to have the extinguisher re-charged and put back into service as soon as possible. If the Safety Officer is not available, then any officer of the club will take action.

As approved by vote at our July meeting, we are in the very early stages of planning for hosting an IMAC (International Miniature

Aerobatic Club) event next year.

Several top pilots that live in the Phoenix area will be joining our club as associate members. I urge everyone to visit with these precision pilots and learn more about their segment of our hobby.

Finally, I want to reminder everyone that in the extremely rare event of a low flying manned aircraft in our airspace, it is our responsibility to see and avoid.

Though we don't mandate the use of spotters, anyone seeing a low flying aircraft needs to err on the side of caution and warn our pilots. Get down and get out of the way.

Happy flying,
Don



What Airplane's Cockpit is This?

See Page 8

CVMA NEWSLETTER
AMA Chapter #3789

President — <i>Don Crowe</i>	
Vice President — <i>Larry Parker</i>	
Treasurer — <i>Marc Robbins</i>	
Secretary — <i>Bob Steffensen</i>	
Safety Officer — <i>Jerry English</i>	
At Large Member — <i>Randy Meathrell</i>	
Newsletter Editor — <i>Bob Shanks</i>	
Flight Instructor — <i>Marc Robbins</i>	



But Marcia, when those guys said, "Look at that Fox... is she a 36 or 40?", they weren't talking about YOU!"

MARK YOUR CALENDARS

2018 Club Events

- Sept 22, 2018 – Annual Steve Crowe Memorial Fun Fly
 Oct 27, 2018 - Second Annual 2018 Build & Fly Challenge.
 Dec 8, 2018 – Christmas Banquet
 Prescott Centennial Center
 Antelope Hills Golf Course



Club Meetings:

Third Wednesday of Each Month—7 PM
 Prescott Airport Executive Building



BORN IN A BARN?

IF YOU ARE THE LAST ONE TO LEAVE THE FIELD:

PLEASE REMEMBER TO LOCK THE GATE.



SAFETY: ALWAYS A CRITICAL ISSUE

We had a crash on the runway during a takeoff late in June and one of the lipo batteries caught fire. The fire was put out but just after that cell was out another cell erupted. During a Lipo fire be aware that there is no way of knowing if it was one cell or all the cells that had ignited.

So never pickup a LiPo too soon if you think it is out and cooled off as it may begin to burn again. Always, Always have sand available as well to completely cover the battery.

Remember too that water and a fire extinguisher will NOT put out a lipo battery fire. The field's fire extinguisher was used to insure that none of the dried grasses and weeds were set aflame at the end of the runway.

Please note that if the fire extinguisher is ever used please let our Safety Officer *Jerry English* know about it so we can keep it filled. When in doubt use the fire extinguisher and have it handy.

Thank goodness we have had some rain so the field is not such a tinder box of dried grasses.

The July issue of *Model Aviation's* monthly safety page covers using a safety disconnect switch for electrics or an arming plug. An experienced modeler had a cell failure when demonstrating how electric retracts work when suddenly the motor jumped to full power, thankfully the modeler had a firm grasp and no one was injured. A rare transmitter battery power cell failed and the model's fail safe engaged when it should have shut down the system. This instance, although rare, has a host of safety issues the think about.

I know many of us, yours truly Included, don't use a safety switch or arming plug but before arming any of my systems to fly I always make sure my plane is in the pit and pointed toward the runway and I am not in the prop arc or anyone else using the set up table.

Some feel they should use one of these safety devices, just mentioned, only on larger more powerful models but this is an individual decision. Always think safety when flying any model and especially electrics.

Many of us store lipo batteries in our ammo cans but make sure you have some holes drilled in the top lid to vent gases in case of a lipo fire. Your editor checked with RC Groups and that question has come up and the recommendation is for some holes to vent the gases from a fire. No one wants the ammo can to explode, rare I'm sure, but a possibility as discussed on RC Groups.

If you drop a knife or other sharp tools just let it fall don't try to catch it you could get injured. That is a natural reaction too but just let it fall and stay out of the way.

FLY SAFE!

CLUB PILOTS AND THEIR FLYING MACHINES



John Stewart's DC-3

Dennis O'Connor's very nice electric F7F-2 Tigercat. See page six for a Tigercat story.



Walt Findlay's glow powered WW I Stick.



Bill Gilbert's gas powered Yak

Shel Liebach's A-10 on final framed by our wind sock.



Jerry English's electric SR-22 Composite 4 place civilian aircraft is a nice flying RC model.



Shel's EDF A10 is a nice size!



Larry Parker's Cessna 310.



Marc Robbins signature slow low pass over the runway.



Dennis O'Connor's electric Zero.



Shel Liebach's P-51 "Jersey Bounce."

July 4th Pot Luck Dinner at the Field



Photo by Marc Robbins

Your editor was unable to make it to the club July 4th Pot Luck Dinner. Thanks to *Marc Robbins* and *Bob Steffensen* we have some pictures and brief data.

Thanks to *Randy and Carol Meathrell* for organizing this fun event. The light show by club member flyers was as good as the fireworks would have been according to many there! Marc says there were about 15 members there with spouses so the total was about 30 folks. Nice turnout for a great event and the weather cooperated too! Great job Randy and Carol!



Dane O'Brien is next to his ERAU plane with lights on ready to dazzle the crowd.

Photo by Marc Robbins



Members used the low assembly platforms as picnic tables using field chairs. Assembly tables were nicely decorated as well.

Member *Andrew Grant* (our young professional RC pilot) is flying Dane's ERAU plane in a knife-edge down the runway as *Dane Watches*.

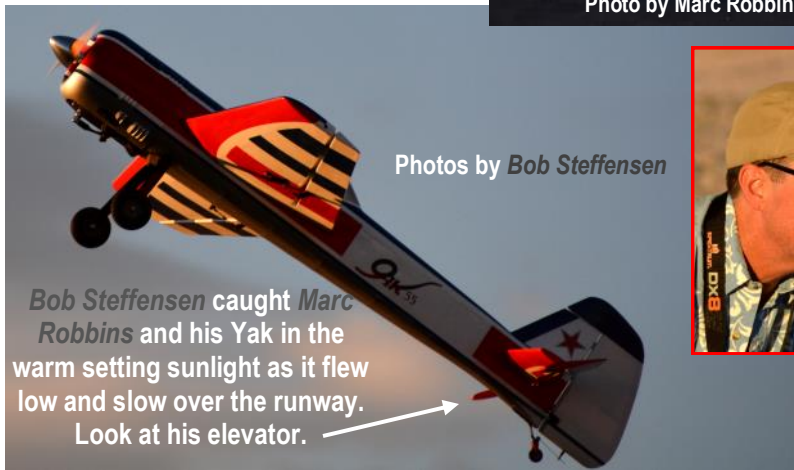


Photo by Marc Robbins



Photo by Marc Robbins

President *Don Crowe* manned the grill. That's *Don Ferguson* standing next to him waiting for his hot dog to get done!



Photos by *Bob Steffensen*

Bob Steffensen caught *Marc Robbins* and his Yak in the warm setting sunlight as it flew low and slow over the runway. Look at his elevator.



Marc Robbins



Brightly decorated assembly tables ready for members and food!



Photo by Marc Robbins

Ara Robbins sits in the running lights of Dane's ERAU bird. Lights were bright enough for photography.



NAVY F7F UNTOLD TIGERCAT STORY

BY CORKY H. MEYER



*(This article contains excerpts from the Flight Journal Magazine, August 2002, Volume 7, No. 4) **

“The relatively unknown Grumman Tigercat was the first production Navy fighter to better the performance and capabilities of land-based fighters. The two Grumman twin-engine fighter prototypes that preceded it, the Navy XF5F-1 Skyrocket and the Army Air Corps XP-50, were both designed and tested before the United States entered WW II, so they provided little or no background combat experience for the Tigercat design.”

Wartime priorities for aircraft production were such that the XF6F-1 Hellcat and the XF7F-1 Tigercat were ordered into production by the Navy on the same day, May 14, 1941, but by the first flight date of the XF7F-1 18 months later, Grumman had delivered more than 4,500 Hellcats to the combat zones!

The first production Tigercat, BuNo 80259, which was to be the structural demonstration aircraft, was sent to NAS Mustin Field in Philadelphia from April 13, to 19, 1944 for the early carrier suitability tests. It had a new Y-frame tail hook configuration. That hook failed its tests; the Navy required a fully swiveling tail hook. Editor’s Note: I checked, there are still 6 F7F Tigercats flying today.



The XF7F-1 Gets a Name

Early in the XF7F-1 flight-test program, the flight-test group informally dubbed it “Tomcat.” The name seemed to fit a night fighter, so Grumman proffered it to the company fighter desk in Washington D.C. and was surprised when the name was denied. The Navy letter stated, “The name ‘Tomcat’ is unacceptable. It denotes feline promiscuity.” Period; end of message. It did accept the second name “Tigercat” as not being as socially and politically unacceptable. Twenty-five years later, in a completely different cultural climate, the F-14’s Tomcat name went over the hurdles without a hitch. It may have been because the three top admirals in the Navy Air at the time were all named Tom: Moorer, Connely, and Walker!

(The following is from the test pilot Corky Meyer)

“On October 23, 1943, I participated in engine runs, system checkouts and high-speed taxi tests. My first flight was November 10, 1943. At that time I had a total of 36 hours and 10 minutes twin-engine time in training aircraft, and they had less than 30% of the power of the twin-engine XF7F. This was very heady stuff for a J-3 Cub-trained test pilot.”

“The noise of the two 2,000 HP Pratt & Whitney R-2800-10B engines just outside the thin canopy was most impressive. I never made a first flight that was as powerfully soul-stirring as the first flight I made in the XF7F-1 one day before my first anniversary at Grumman. Even my first flights in jets weren’t as memorable. It was mind-boggling to keep this eight-gun fighter in a 30-degree climb until it attained its service ceiling. In comparison, the soon-to-be-famous six-gun F6F-3 Hellcat fighter I had been testing suddenly seemed like and elderly pussycat.”

“On December 5, 1943, a group of Washington Navy brass came to Grumman’s Bethpage plant to discuss the progress of the XF7F-1 program and to see the plane demonstrated. It would be my 15th flight in the Tigercat, and I looked forward to the showing off this very powerful aircraft.”

“I made a very short, flaps-down, full-power takeoff at 75mph; the aircraft climbed at an outrageous angle compared with the production Hellcat that had taken off just before me. I picked up speed and came in for a 400 mph-plus, low-level pass. As I approached the end of the runway at treetop level, I suddenly saw the Beau Sejour restaurant flag pole and its waving flag directly in front of me about 30 feet higher than my altitude! To go over it, I pulled up quickly; this required an abrupt pushover to get back to the runway in time for a low-level pass. After passing the admiral’s group in the tower, I made a 5G pull-up to start a Cuban-8 loop.

“When I was vertical, a call from the tower said that Flight 2 (Bud Gillies, vice president of Flight Operations) wanted to see me in his office immediately after landing. I didn’t know what I had done to warrant the summons, but it soon became apparent that Bud, who was not slow with his thoughts, was madder than a hornet. He said that I had been reckless with the experimental aircraft because, from the view from the tower, it first looked as though I would hit the flagpole, which was followed by a seemingly abrupt diving crash into the runway. After a much too long, one-way conversation, he told me I would be given a week off without pay—beginning immediately! End of conference. I was later told that his voice could be heard over the low office partitions from one end of Plant One to the other.”



* **Reference:** <https://forum.warthunder.com/index.php?/topic/269010-f7f-tigercat-an-untold-story/>

NATIONAL ADVISORY COUNCIL ON AERONAUTICS (NACA) INSTRUMENTAL IN HELPING WIN WORLD WAR II *

A few months after the D-Day invasion, Supreme Allied Commander Gen. Dwight Eisenhower and his son John – then an Army second lieutenant – walked along the Normandy beaches and pondered the course of the war. “You’d never get away with this if you didn’t have air supremacy,” the son told his father. “Without air supremacy,” the general responded, “I wouldn’t be here.”

To be certain, the aviation advantage we eventually achieved on both the European and Pacific fronts of the war was due to the efforts of many parties – the Army Air Corps, Navy, industry, university labs, our Allies, and the NACA.

Development and Research was Buffeted by the Winds of War

NACA’s World War II story, and a fundamental change in the size and scope of the organization and approach to research, actually begins in the prewar years, when the Committee’s man in Europe, Paris-based John J. Ide, in 1936 reported to the home office on greatly expanded aeronautical research efforts in England, France, Italy, and Germany.² In 1936, George Lewis, NACA’s Director of Aeronautical Research, inserted a deft warning to the government in the NACA’s annual report, stating that “increased recognition abroad of the value and of the vital necessity of aeronautical research has led to recent tremendous expansion in research programs and to multiplication of research facilities by other progressive nations.

Thus has the foundation been laid for a serious challenge to America’s present leadership in the technical development of aircraft.” In September-October of that year Lewis flew to Germany aboard the airship Hindenburg, in part because of these developments and in part because of an invitation by Deutsche Zeppelin-Reederei. Once there, he received a complete guided tour of German aerospace research facilities and was both impressed and disquieted by their activities. Reflecting on Germany’s commitment to exceeding American aeronautics facilities, Lewis reported back, “The cost is not considered.” He *also reported that* “the personnel of the German research laboratories is larger in number, and the engineers have the opportunity of having special training, which has not been afforded to many of our own engineers.” States former NASA historian Roger Launius, currently Associate Director of Collections and Curatorial Affairs at the Smithsonian’s National Air and Space Museum, the Lewis trip “really set them [NACA] on a new path where they realized that they needed to do high-speed work, that they needed to do more wind tunnels, that they needed to do propulsion research that they really hadn’t done much of. They sort of woke up and said, ‘*Oh my God. We need to get busy.*’”

While not a dramatic scientific breakthrough, drag cleanup and reduction conducted at NACA Langley and Ames – the painstaking work to minimize airplane resistance to airflow – led to significant speed increases in our military aircraft. Beginning in 1938, Langley researchers using the famous “Cave of the Winds” Full-Scale Wind Tunnel developed a new method to measure the drag produced by every part of an airplane and make recommendations to the manufacturer about reducing drag. The military, which had before the war assumed responsibility for drag reduction work, basically turned it over to the NACA, and allowed its researchers to test virtually every new prototype both in wind tunnels and in flight.

An example of the efficacy of drag cleanup was the predicted increase in the top flying speed of the Bell P-39 Airacobra from 340 mph to 392. The NACA scientists recommended a series of detail changes that could greatly increase the aircraft’s speed without a costly redesign, but the 392 mph figure depended upon the aircraft’s original turbo supercharged power plant, and an aircraft that weighed in the neighborhood of 5,500 pounds. “Figuring out a way to build a 400 mph fighter at level flight and to get to that kind of speed was a big deal,” noted Launius. Bell and the Army were quite pleased with the results of the NACA’s drag reduction work, and ultimately Bell made enough of the recommended changes to increase the Airacobra’s speed by 16 percent. Unfortunately, the replacement in the production model of the aircraft’s turbo supercharged engine with a less powerful one incorporating a geared supercharger, and the addition of armor and armament, and for that matter, olive drab paint, reduced the Airacobra’s speed again, and production P-39s never exceeded 386 mph.

North American Aviation’s legendary P-51 Mustang was altogether more successful, and could attribute much of its performance to NACA research, as Michael H. Gorn describes in *Expanding the Envelope*. When the XP-51 took to the air, it was borne on a laminar flow wing that derived from the research of NACA aerodynamicist Eastman Jacobs and his team. The production Mustang was among the fastest propeller-driven fighters of the war in level flight, and surpassed most of the others in dive performance. NACA flying qualities research, including some very hazardous test flying, also led to refinements in the Mustang’s ailerons that would give it the highest roll rate of any frontline fighter in the world, a vital capability in a dogfight.

The North American XP-51 Mustang was the first aircraft to incorporate an NACA laminar-flow airfoil. This is the second XP-51, which arrived at Langley in March 1943.



* <https://www.defensemedianetwork.com/stories/naca-helping-to-win-world-war-ii/>



Page Two Mystery Cockpit Plane: *Lockheed U-2 Cockpit*



CIA Report on America's most famous spy plane — The U-2

<http://foreignpolicy.com/2013/08/15/the-secret-history-of-the-u-2/>

On February 21, 1955, Richard M. Bissell, a senior CIA official, wrote a check on an agency account for \$1.25 million and mailed it to the home of Kelly Johnson, chief engineer at the Lockheed Company's Burbank, California, plant. According to a newly declassified CIA history of the U-2 program, obtained under the Freedom of Information Act by the National Security Archive, the agency was about to sign a contract with Lockheed for \$22.5 million to build 20 U-2 aircraft, but the company needed a cash infusion right away to keep the work going. Through the use of "unvouchered" funds — virtually free from any external oversight or accounting — the CIA could finance secret programs, such as the U-2. As it turned out, Lockheed produced the 20 aircraft at a total of \$18,977,597 (including \$1.9 million in profit), or less than \$1 million per plane. In other words, the project came in under budget, a miracle in today's defense contracting world.



A source of deep pride for the U.S. intelligence community, the U-2 program survived the May 1, 1960, shoot-down of Francis Gary Powers over the Soviet Union, and the plane went on to spy for the CIA until 1974 — and the Air Force still operates the latest version today. Nevertheless, the agency has been holding back information about the U-2 for years. At a 1998 CIA-sponsored symposium to celebrate the U-2 program, one of the conference speakers was asked to refrain from mentioning how Chinese Nationalist pilots, based in Taiwan, flew agency U-2s over and near the People's Republic to gather intelligence on the PRC, including its nuclear programs. The speaker ignored the request, but that did not stop the CIA from maintaining that such information should remain officially classified. That position was reflected in a heavily redacted volume, *The CIA and the U-2 Program*, which the agency released to the public at the time of the conference.

Fifteen years later, the CIA has become considerably less reticent about revealing details of the program, as demonstrated by the newly declassified *The Central Intelligence Agency and Overhead Reconnaissance: The U-2 and OXCART Program, 1954-1974*, from which the 1998 volume was drawn. This report, which the National Security Archive is posting today, openly credits Chinese Nationalist pilots with numerous missions over the People's Republic of China to gather intelligence on both military facilities and industrial areas, although details of a flight over a nuclear facility are deleted. British participation in the program is also now spared from redaction — participation that included flights over the Soviet Union. The history also notes President Dwight Eisenhower's belief that the British role would confuse the Soviets as to who was behind the program.

And while it discusses Britain as an ally in gathering intelligence, the history reports on France as a target — specifically, the French nuclear testing facility in the Pacific, photographed by the only U-2 to operate off an aircraft carrier. India, Indonesia, and Tibet also figure in the less redacted version — the latter two as cases where the U-2 was used to support CIA covert operations in the late 1950s. Between March 28 and June 12, 1958 agency U-2 pilots flew 30 missions over Indonesia in support of the effort to oust President Sukarno, whom the Eisenhower administration found troublesome.

Back in the United States, Area 51 (a.k.a. Groom Lake), the secret facility in Nevada where the U-2 and other clandestine aircraft were tested, now makes repeated appearances in the history, including a declassified map showing where Area 51 actually is. So do other secret aircraft. The section on China discusses the STPOLLY effort (the use of P-2V planes to conduct low-altitude electronic intelligence missions), and two unmanned aircraft programs (AQUILINE and AXILLARY) are featured prominently in an appendix.

The final take-away, after 355 pages of inside history, is to wonder why the government kept all of this secret for so long. For example, what was the point of keeping secret the CIA's assessment that British author Chris Pocock's book, *Dragon Lady*, is "by far the most accurate unclassified account of the U-2 program"?





Unplanned July Outdoor Club Meeting



General Membership meeting of July 18, 2018 was opened by President *Don Crowe* at 6:52pm and began with bringing chairs outside to the parking lot for an impromptu outdoor meeting, due to lack of a meeting room. The Pledge of Allegiance was "tabled until next month"

The Club membership now stands at 132. Thirty five signed in roster this evening and head count showed 37 members were in attendance. New member *Craig Hunter* joined us tonight

Vote to approve May minutes were tabled until next month.

Reports

Treasurer *Marc Robbins* presented his May and June reports which were approved

unanimously. Marc also reported that current account balances should sustain us for the remainder of the year and projected that our dues would allow saving over the next 10 years for repaving the runway or other projects.

VP *Larry Parker* gave us a quick rundown on his effort to have a WIFI enabled weather station at the field. This is a work in progress.

President's Agenda

President *Don Crowe* thanked Mark Lipp for cleaning up and repairing the grill at the field. He also thanked Carol Meathrell for organizing the 4th of July pot luck. There was a good turnout. Fireworks were canceled however, *Marc Robbins*,

Dane O'Brien, and Andrew Grant impressed all of us with their late evening and after dark acrobatics.

We have been contacted by IMAC officials asking if they could use our field for an IMAC event. After discussion members approved proceeding with planning for this even which will be in the spring 2019. New member *Craig Hunter*, an IMAC flyer, stated that we had a "world class field". Most members agree with that! We have generous members who have support field improvements over the past few years.

We will not likely have our meeting room available next month either. Location for next meeting will be determined.

Member Comments

Bob Colianni asked if the Club could publish contact information of members. After a brief discussion of security of personal information it was determined that members could ask a Club officer for individual club members info.

The Board will consider how we can better do this in the future while protecting personal information of members.

Door Prize/Raffle

Tabled to next month We adjourned about 7:50pm for goodies provided by *Lou Yanni* as everyone left they took a goodie to have on the way home.

Respectfully,
Bob Steffensen Club Secretary



Marc Robbins gave the treasurer's report.



President *Don Crowe* ran The abbreviated meeting.



Meeting occasionally interrupted By ERAU student pilot take offs!



Thirty five members attended our parking lot meeting!